

Dennis (F. S.)

Table showing nervous manifestation

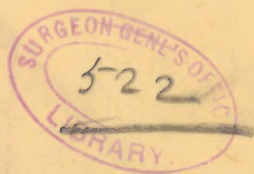


TABLE SHOWING NERVOUS MANIFESTATIONS FOLLOWING TRAUMATISMS OF THE SPINE [Dennis]

	Paralysis	Area of Paralysis A = Anterior.	ANAESTHESIA	Area of Anaesthesia P = Posterior	REFLEXES
1 st cerv.	Death from pressure of odontoid	—	—	—	—
2 nd 3 ^d	Death from paral. of diaphragm.	—	—	—	—
4 th	Paralysis of upper arm muscles.		Upper Shoulder. Outer Arm.		Pupil.
5 th	Supinators of hand.		Outside of Arm and fore-arm.		Pupil Scapular Supinator Triceps.
6 th	Biceps Triceps. Extensors of wrist.		Outer half of hand.		Pupil Scapular Triceps Post. wrist.
7 th	Pronators of wrist. Latiss. Dorsi.		Inner side of arm and fore-arm.		Pupil Scapular Post. wrist Ant. wrist Palmar.
8 th	Flexors of wrist. Hand muscles.		Inner side of hand.		Scapular Post. wrist Ant. wrist Palmar.
1 st DORS.	Thumb.		Ulnar supply to hand.		Scapular Palmar.
2 nd to 12 th DORS.	Muscles of back and Abdomen.		Skin over back and abdomen in areas corresponding to distribution of spinal nerves.		Epigastric. 4 th to 7 th Abdominal 7 th to 11 th .
1 st LUMBAR	Psoas. and Sartorius.		Groin.		Cremasteric
2 nd	Quadriceps Femoris		Outside of Thigh.		Cremasteric Patellar.
3 ^d	Abductors and inner rotators of Thigh.		Front and inside of Thigh.		Cremasteric
4 th	Abductors of Thigh. Tibialis Anticus		Inside of leg, ankle and foot.		Gluteal
5 th	Outward rotators of Thigh. Flexors of knee and ankle.		Back of Thigh and leg. Outside of foot.		Gluteal.
1 st 2 nd 3 ^d SAC	Muscles of foot. Peronei.		Outside of leg.		Plantar.
4 th 5 th	Perineal muscles		Perineum, anus and genitals.		Ankle Clonus.

The muscles governed by the injured segment are paralysed and become flabby and atrophied. Those governed by segments below the point of injury are paralysed as to motion and sensation, but do not atrophy. This is due to the fact that their centres of nutrition in the cord are uninjured. If no treatment is instituted however, ascending and descending degeneration of the cord takes place, causing atrophy of the muscles governed by the various segments.

PRIAPISM is frequently seen in fractures of the upper part of the spinal column, and is due to the cutting off of inhibitory impulses from the higher centres.

The BLADDER and RECTAL centres are in the lower lumbar segments, and traumatism in this region causes incontinence of urine and faeces. Injuries higher up cause retention.

TYMPANITES is seen in injuries to the upper part of the cord: it is due to paralysis of peristalsis.

BROWN-SEQUARD'S paralysis (loss of motion on one side and of sensation on the other) is seen in unilateral lesions of the cord, such as might be caused by a bullet. It is due to the immediate decussation of the sensory fibres on entering the cord. It is not seen at first, as the general bruising causes bilateral paralysis.

REFLEXES. PUPIL: Dilatation produced by pinching side of neck. SCAPULAR: Scratching skin over scapula causes muscles to contract. SUPINATOR: Tapping tendon at wrist causes flexion of arm. TRICEPS: Tapping elbow tendon causes extension of arm. POSTERIOR WRIST: Tapping tendons causes extension of hand. ANTERIOR WRIST: Tapping tendons causes flexion of wrist. PALMAR: Scratching palm causes flexion of fingers. EPIGASTRIC: Stroking mammae causes retraction of epigastrium. ABDOMINAL: Stroking abdomen causes retraction. CREMASTERIC: Stroking inner thigh causes retraction of scrotum. PATELLAR: Striking patellar tendon causes extension of leg. GLUTEAL: Stroking buttock causes dimpling in gluteal fold. PLANTAR: Stroking sole of foot causes flexion of foot and retraction of leg. ANKLE CLONUS: forcible extension causes rhythmical flexion.

